

AMENDMENTS TO THE CLAIMS:

Please cancel claim 15 without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A system for assessing stability in a boom lift vehicle including a boom, a boom pivot, a main lift cylinder coupled with the boom, a main lift cylinder pivot, and vehicle driving components, the system comprising:

a first force sensor pin installed in the boom pivot, the first force sensor pin detecting force components acting thereon via the boom pivot along two perpendicular axes;

a second force sensor pin installed in the main lift cylinder pivot, the second force sensor pin detecting force components acting thereon via the main lift cylinder along two perpendicular axes; and

a control system communicating with the vehicle driving components and the first and second force sensor pins, the control system determining a destabilizing moment based on the force components acting on the first and second force sensor pins and based on horizontal and vertical distances from the first and second force sensor pins, respectively, to a point around which the moment is determined to thereby assess boom lift vehicle stability in at least forward and backward directions, the control system controlling the vehicle driving components based on boom lift vehicle stability.

2. (Previously Presented) A system for assessing stability in a boom lift vehicle including a boom, a boom pivot, a main lift cylinder coupled with the boom, a main lift cylinder pivot, and vehicle driving components, the system comprising:

a first force sensor pin installed in the boom pivot, the first force sensor pin detecting force components acting thereon via the boom pivot along two perpendicular axes;

a second force sensor pin installed in the main lift cylinder pivot, the second force